Message

From: Fleisig, Erica [/O=EXCHANGELABS/OU=EXCHANGE ADMINISTRATIVE GROUP (FYDIBOHF23SPDLT)/CN=RECIPIENTS/CN=57317CE4C3234AFE86380BEAB9C70BD9-EFLEISIG]
Sent: 10/18/2020 2:29:11 PM
To: Wilcut, Lars [wilcut.lars@epa.gov]
Subject: FW: ALC metals fraction

I'm going to let you respond to this one but my thinking is that Maggie is correct, and I think John's original email wasn't correct.

From: Pierce, Maggie <Pierce.Maggie@epa.gov>
Sent: Friday, October 16, 2020 3:49 PM
To: Healey, John <healey.john@epa.gov>; Sengco, Mario <Sengco.Mario@epa.gov>
Cc: Wirick, Holiday <wirick.holiday@epa.gov>; Wilcut, Lars <Wilcut.Lars@epa.gov>; Fleisig, Erica <Fleisig.Erica@epa.gov>
Subject: RE: ALC metals fraction

Thanks, John. Yes, if Lars or Erica wants to respond to my original email, that would be appreciated.

I'm not following how the two tables create discretion around whether the criteria are implemented as total or dissolved. It seems like the tables are duplicating the same CFs for the hardness-based metals ALC listed in both. If anything, I would think the discretion would be based in the fact that the tox data underpinning metals criteria is usually in total form and that discretion would be relevant to all metals – not just hardness-based ones.

In R8, we have generally recommended that metals ALC be implemented as dissolved fractions (with a few exceptions like Al and maybe Fe??) consistent with the national recommendation (unless something has changed). The most important thing in my mind is that if ND is going to depart from implementing all its metals criteria in terms of the dissolved fraction, they need to specify which are for the total fraction in their WQS so that the criteria aren't under-protective. However, I would rather ND just stick with the dissolved fraction and keep things as simple and straightforward as the science justifies.

From: Healey, John <healey.john@epa.gov>
Sent: Friday, October 16, 2020 1:25 PM
To: Pierce, Maggie <Pierce.Maggie@epa.gov>; Sengco, Mario <Sengco.Mario@epa.gov>
Cc: Wirick, Holiday <wirick.holiday@epa.gov>; Wilcut, Lars <Wilcut.Lars@epa.gov>; Fleisig, Erica <Fleisig.Erica@epa.gov>
Subject: RE: ALC metals fraction

Hi Maggie,

I sent the attached message to Mario on October 6th, which he might have shared with Holly. I suspect that Lars or Erica might be able to clear things up, based on their knowledge of the metals criteria.

My understanding is that dissolved metals are calculated in one of two ways, depending on whether or not they are considered *hardness-dependent*. Because the metals listed in Appendix B are a subset of those listed in Appendix A, it appears that there is some discretion regarding whether or not the criteria may be expressed as *total* or *dissolved* (i.e., discretion whether or not to apply the conversion factor for those metals listed in Appendix B). I added short responses to your questions in your message, below, but I'd recommend waiting to see if Lars or Erica have anything to add or clarify.

Lars and Erica, when you're back in the office could you please weigh in on this issue?

John

From: Pierce, Maggie <Pierce.Maggie@epa.gov>
Sent: Friday, October 16, 2020 1:29 PM
To: Sengco, Mario <Sengco.Mario@epa.gov>; Healey, John <healey.john@epa.gov>
Cc: Wirick, Holiday <wirick.holiday@epa.gov>
Subject: ALC metals fraction

Hi Mario and John,

I was recently discussing hardness-dependent ALC metals with Holly and wanted to clarify a couple things. My understanding is that metals ALC are recommended to be implemented for the dissolved fraction. Because the tox data underpinning the criteria are in the total form, a conversion factor is necessary for all metal ALC (both hardness-dependent and not – except Al and maybe Fe).

1) Is EPA's recommendation still for all aquatic life metals criteria to be in the dissolved form (consistent with this memo and the notes in the NRWQC column)? Has anything changed? (My take is that ALC for the total form could be scientifically defensible and approvable but are not recommended.) This issue came up in some discussion regarding the aluminum aquatic life criteria, which are expressed as total but some states wanted to express as the dissolved (bioavailable) form only. Lars may have more insight into this issue.
2) Accordingly, do we still recommend the hardness-dependent criteria for freshwaters incorporate the conversion factors identified in Appendix B of our NRWQC website? Yes, I think we would still recommend this.

Thanks,
Maggie

Maggie Pierce
Water Quality Section
EPA Region 8
303-312-6550 (rolls over to my cell)